



(43) International Publication Date 24 December 2003 (24.12.2003)

PCT

(10) International Publication Number WO 03/106997 A1

(51) International Patent Classification⁷: G

G01N 33/48

(21) International Application Number: PCT/AU03/00731

(22) International Filing Date: 13 June 2003 (13.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PS 2930

14 June 2002 (14.06.2002) AU

(71) Applicant (for all designated States except US): WOMEN'S AND CHILDREN'S HOSPITAL [AU/AU]; 72 King William Road, North Adelaide, S.A. 5006 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MEIKLE, Peter, John [AU/AU]; 31 Minnamurra Drive, Redwood Park, S.A. 5097 (AU). FULLER, Maria [AU/AU]; 24 Charles Street, Prospect, S.A. 5082 (AU). RAMSEY, Steve, Lewis [AU/AU]; 18 Backcreek Road, Young, ACT 2594 (AU). RANIERI, Enzo [AU/AU]; 8 Beaufort Street, Woodville, S.A. 5011 (AU). HOPWOOD, John, Joseph [AU/AU]; 2 Monarto Court, Stonyfell, S.A. 5066 (AU).

(74) Agent: MADDERNS; Level 1, 64 Hindmarsh Square, Adelaide, S.A. 5000 (AU).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with amended claims and statement

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OLIGOSACCHARIDE BIOMARKERS FOR MUCOPOLYSACCHARIDOSES AND OTHER RELATED DISORDERS

(57) Abstract: The present invention is related to methods for diagnosing mucopolysaccharidoses ("MPS") and related diseases. This invention pertains to methods for identifying and quantitating biochemical markers ("biomarkers") that are present in biological fluids or tissues of a patient having a MPS or related disorder. One aspect of the method comprises determining a target quantity of a target MPS biomarker oligosaccharide from a target biological sample taken from the target animal, and then comparing the target quantity to a reference quantity of a reference MPS biomarker oligosaccharide for the diagnosis, characterization, monitoring, and clinical management of MPS and related disease. This invention also describes a kit comprising a oligosaccharide derivatization solution; an acid solution; an internal standard; a solid phase extraction column; a solid phase extraction column wash solution; an oligosaccharide elution solution; and a set of instructions for using the kit to diagnose a MPS or related disease.

VO 03/106997